

are verditer-blue (in the male), the under tail-coverts orange. The sexes are different in coloration.

Male . . .	Wing	123 millim.;	tail	167 millim.
Female ..	„	118 „	„	? „
„ ..	„	118 „	„	150 „
„ ..	„	121 „	„	148 „

Adult male. Forehead, lores, and crown dark chestnut; cheeks and ring across the nape and all the lower parts verditer-blue; the abdomen more greyish and without any trace of scarlet. Lower tail-coverts orange. Back of neck, back, scapulars, inner wing-coverts, and inner secondaries light greyish brown. Rump bluish green; upper tail-coverts yellowish green with faint bluish edges. A large patch on the anterior, smaller, and median wing-coverts, yellow; greater wing-coverts and quills black, the latter slightly edged with a bluish tint; edge of the wing verditer-blue; under wing-coverts of a more bluish hue. Two central tail-feathers olive-green at the base, passing into brownish black towards the extremity; next pair bluish green with whitish tips, and the inner web blackish; the remaining tail-feathers light bluish green, crossed by an irregular blackish band. Bill (in skin) bluish horn-colour with whitish edges; feet brownish grey.

Adult female. Crown and forehead greyish olive-green, cheeks more grey. Upper surface, wing-coverts, and breast yellowish green; abdomen light bluish green. Rump, upper and under tail-coverts, and tail as in the male; under surface of the quills with an oblong yellow spot; edge of the wing greenish; under wing-coverts dark greyish green. Bill dark, as in the male.

Younger female. Like the adult female, but the crown a little more yellowish green (like the back), with the front greyish; sides of the head clear grey, with faint stripes of emerald-green. Bill yellowish.

Hab. This Parrot was met with here and there in small flocks in Arnhem Land, particularly between Pine Creek and Catherine River, but did not appear to be common. It was seen only during the dry season. It possesses a singular jarring cry, and, like all Parrots, is reluctant to forsake a wounded companion.

Christiania, March 15, 1898.

3. Notes on *Lepus oiostolus* and *L. pallipes* from Tibet, and on a Kashmir Macaque. By W. T. BLANFORD, F.R.S., F.Z.S.

[Received April 14, 1898.]

In Büchner's magnificent work on the Mammalia collected by Przewalski¹ in Central Asia many important changes are introduced into the nomenclature formerly employed by myself and others, and several of the species described by Dr. Günther and

¹ Wissenschaftliche Resultate der von N. M. Przewalski nach Central Asien unternommenen Reisen &c. Zoologischer Theil. Band I. Säugethiere.

myself from the collections made by the members of the 2nd Yarkand Mission are referred to forms previously named by Russian writers. In most cases there can be no hesitation in accepting conclusions formed from a far larger series of specimens and with the advantage of access to types; and even in some instances, in which I feel doubt as to whether Büchner's views are right, I have not now the specimens of the Stoliczka Collection nor any other Central Asiatic skins available for reference.

There is, however, one case in which I can, I think, give reasons for not agreeing with Büchner, and it is important that this particular point should be cleared up, both because the species concerned are found within British Indian limits, and were described by a British author, and because the identification depends on specimens and drawings in London collections. Moreover, I feel bound to deal with the matter because I have, as Büchner very justly remarks, omitted to publish the evidence on which my own final conclusions were formed—the volume on Mammalia of the 'Fauna of British India,' in which they appeared, being unsuited for the discussion of details.

This case relates to the Hares named *Lepus oiostolus* and *L. pallipes* by Hodgson. The first was described in 1840¹, the second in 1842². It is unnecessary to enter at any length into the history of these forms except to say that in 1879³ I pointed out that the type of *L. oiostolus* was a very young animal, and in 1891⁴ I united the two supposed species after examining thoroughly the evidence existing. Büchner, in 1894, after showing that in Hodgson's original description of *L. oiostolus* nothing was said of the species being founded on young animals, and that, on the contrary, all the details appeared to have been taken from adults⁵, proceeded to identify with *L. oiostolus* a rather large Hare from high elevations in Northern Tibet and in Kansu (Ganssu), a smaller species from the same region being regarded by him as *L. pallipes*.

I am quite aware that nothing has been published by Hodgson to show that the name of *L. oiostolus* was given to young specimens; indeed it is far from certain that Hodgson was aware at the time that the skins originally described by him came from immature animals⁶, though, as I shall presently show, he appears to have ascertained subsequently that this was the case.

¹ J. A. S. B. ix, p. 1186.

² J. A. S. B. xi, p. 288, pl.

³ Scientific Results 2nd Yarkand Miss., Mam. p. 63.

⁴ Fauna Brit. Ind., Mam. p. 452.

⁵ "Ich möchte aber noch die Bemerkung vorausschicken, dass das Material, welches Hodgson bei Aufstellung seiner Art vorgelegen hat, ein, wie er selbst angiebt, nur defektes war; dass aber dieses Material jungen Thieren angehörte (wie dieses Blanford annimmt) wird von ihm nicht erwähnt und ist auch von der Beschreibung nicht zu ersehen; es sprechen im Gegentheile alle Angaben dieser Beschreibung dafür, dass die Originale erwachsene Thiere waren."—Büchner, *l. c.* p. 205.

⁶ The following was Hodgson's original description, *l. c.* pp. 1185, 1186:—

"Of the Tibetan species I possess only some wretched remains which enable me to indicate the species thus:

"*Lepus oiostolus*, with fur consisting almost wholly of wool, considerably

I will proceed to give the evidence on which I founded my statement that the type or types of Hodgson's *L. oiostolus* were immature.

The only original specimen in the British Museum, marked as the type, is a skin about 8 inches in length, and consequently of an animal not nearly half-grown. But I am of opinion that this cannot be the original type of Hodgson's description, for not only is the size very much less than that of *L. ruficaudatus*, but moreover the colour is not slaty-grey blue, and the fur is not distinctly woolly. It is of course possible that the fur may have been originally slaty-grey blue and that it has faded, but this is not very probable. At the same time it is quite possible, and even probable, that this young Hare is a very young *L. pallipes*. A skin of an older but still immature *L. pallipes* from Northern Sikkim, received from the late Mr. Mandelli and now in the British Museum, does, however, agree admirably with Hodgson's description of *L. oiostolus*, so much so that I believe the description to have been drawn, as Hodgson says, from "some wretched remains" of a skin or skins resembling that procured by Mandelli.

This view is confirmed by Hodgson's MS. notes. As is well known, the drawings presented by Hodgson to the British Museum were copies of his original figures; these figures were subsequently given by him to the Zoological Society, and they are invaluable on account of the MS. notes written on them by Hodgson himself. Amongst these original drawings there is one of *L. oiostolus*, in a crouching position. This drawing is small (about $3\frac{1}{2}$ inches long) and shows scarcely any characters except a greyish colour and woolly fur. No notes are attached. This drawing does not resemble the specimen said to be the type in the British Museum. There are two drawings of *L. pallipes*—one of these the original of the excellent plate in the Journal of the Asiatic Society of Bengal, vol. xi. p. 289, and on the back of the sheet with these drawings are the following notes in Hodgson's handwriting:—"1, 2, 3 [the numbers evidently refer to different skins]. Various skins from Tibet; animal on the whole not larger than *ruficaudatus*, but seems to have a larger head and shorter ears, but perhaps not so. Size cannot be greater, for teeth smaller, nails of same size, and legs, of which bones entire, quite equal. Comparing *oiostolus* and *pallipes*, apprehend they are the same. Specimen 1 of latter last described (see Journal 124¹ of 42), sp. 2 doubtful, sp. 3 got in Sikkim from [illegible] April." "It is moulting and shows new fur coming on back. This new fur in the hairy piles is $1\frac{1}{4}$ inch long,

curved and interspersed rarely with very soft hairs. Slaty grey blue for the most part and internally, but externally fawn-tinted above, and whitish below and on the limbs; some hairs on the back tipped with black beneath a sub-rufous ring. Tail white with a grey-blue strip towards the back. Apparent size of the last (*L. macrotus=ruficaudatus*). *Habitat*, the snowy region of the Himalaya and perhaps also Tibet."

¹ That is No. 124, the number of the part of Jour. As. Soc. Beng. in which the description of *L. pallipes* appeared in the year 1842.

very fine, slightly wavy. Basal half almost hoary; apical half has 3 equal rings, 2 black and, between them, a pale ruddy one. The shorter woolly piles are hoary, tipped with clear pale brown, and this is only seen in old fur, making the colour above brown. Rump and *basal strip above of tail blue*" [the italics are mine], "all the piles being wholly of that hue (pale slaty); rest of tail rufescent white, all below more or less tinted rufous, palest and white almost under head and mid-belly and buttocks [a few words here are confused and doubtful]; outside limbs the ruddy tint clearer and deeper and on front of neck, but no black-tipped hairs. Paws darker ruddy. Head above darkest, most of hairy piles [sentence doubtful] of outer surface of ears as turned back colour like head above, of inner surface and nape rufescent white, large black tips to ears, moustaches half black half white."

Lower down in pencil, also by Hodgson, is a note, referring apparently to yet another specimen. It runs thus:—

"Another young seems to prove that *oiostolus* is young of *pallipes* or this¹. About 14 [inches] from snout to vent" [other skins varied from 19 to 23]. There is a longish description of which only the following requires quotation:—"As to colour, very little of rufous or of black, above slaty-blue shaded with hoary, more or less rufescent on body and clearly so on neck, shoulders, and a bit down fore limbs to ends. Buttocks pure slaty, head grey; of the outsides of ears the exterior half is white from base to tip and the interior darkish grey like head above."

I cannot see how, with the above evidence, there can be any other conclusion than that the name *L. oiostolus* was given to an immature specimen or to immature specimens of the species subsequently named *L. pallipes*. That *L. oiostolus* cannot be, as Büchner supposes, the larger species of the two is manifest from Hodgson's remark on p. 288 of J. A. S. B. vol. xi. He there says that *L. oiostolus* is not so common in the Central and Eastern Provinces of Utsang and Kham as the *next and much larger* species (*L. pallipes*).

What, then, is the larger Hare identified by Büchner with *L. oiostolus*? In Southern Tibet, at high elevations, there are found two Hares, one large, the other of moderate size—*L. hypsibius* and *L. oiostolus* (*L. pallipes*). It is probable that the two Hares inhabiting similar lofty plateaux in Northern Tibet are identical or closely allied, and the smaller species is identified by Büchner with that found on the Himalayan frontier of the Tibetan highland. From the description also it is manifest that the Hare identified by Büchner with *L. oiostolus* resembles *L. hypsibius* in size, in its very thick woolly fur, and generally in colour; the only important exception being that the northern form has on the

¹ I do not understand what is meant by 'or this,' unless Hodgson thought he had included more than one species under *L. pallipes*. In his Catalogue of Mammals of Nepal, published in the Calcutta Journal of Natural History, ii. (1842) p. 220, five new species of *Lepus* are mentioned, but as only *macrotus* and *diastolus* (*oiostolus*) are specified, the 5 may be one of the numerous misprints occurring in the list.

upper surface of its tail a distinct narrow blackish stripe¹ tinged with grey, which is wanting in *L. hypsibius*. The skull, too, judging from a comparison of Büchner's figures (pl. xxv. figs. 6-8) with my own (pl. iv. a, figs. 1, 1 a, 1 b), is very similar except that the nasals in the North Tibetan skull are rather longer. Some apparent divergencies in the printed measurements are evidently due to different methods of taking the dimensions. Both skulls agree in one very striking character, the elevation of the post-orbital processes on each side above the plane of the frontals, and the resulting concavity of the frontal area.

I think it is by no means improbable that the large Hare of North Tibet and Kansu, identified by Büchner with *L. oiostolus*, is a variety of *L. hypsibius*. If not, it must, I think, be an undescribed species.

On *Macacus rhesus villosus*.

In the Proceedings of the U. S. National Museum, vol. xvii. pp. 1-16 (1894), is a paper by Mr. Frederick W. True entitled "Notes on Mammals of Baltistan and the Vale of Kashmir, presented to the National Museum by Dr. W. L. Abbott." I am indebted to the author for a copy. Three species of *Arvicola* are described as new, and a grey form of *Mus arianus* as a new subspecies. A Monkey is called *Macacus rhesus villosus*, and is regarded as a new subspecies of *M. rhesus*.

This last is by far the most interesting addition to the Kashmir fauna. Five specimens, all males, and three of them adults, were obtained in Lolab, which lies N.W. of the western extremity of the Walar Lake, and about 20 miles north of Baramula.

Mr. True says that at first he supposed the specimens to represent *M. assamensis*, but after a careful comparison with Anderson's description of the type of that species, he was convinced that they were not the same. He omits to point out the differences.

Now there are three characters by which *M. assamensis* (*M. pelops* Hodgs.) may be distinguished from *M. rhesus*. In the former the face is dusky, the hair is wavy or woolly, and the buttocks are clad with hair around the callosities. Every one of these three characters is possessed by *M. rhesus villosus*. Moreover there is not, so far as I know, any other characteristic difference in skins. I am unable to come to any other conclusion than that the *M. rhesus villosus* is identical with *M. assamensis*. The Kashmir Monkey is, I think, certainly *M. pelops*, and Anderson, who examined the types of both, united *M. pelops* and *M. assamensis*.

If the *Macacus* of Lolab is *M. assamensis*, it is probable that

¹ Büchner's identification of the Hare with *L. oiostolus* appears to be chiefly due to the presence of this grey stripe on the upper surface of the tail, as he quotes Hodgson's description, "tail white with a grey-blue strip towards the back." It is probable that Hodgson's expression has been understood to imply the presence of a stripe along the whole dorsal surface: I am satisfied, however, that by "towards the back" he meant the extreme base of the tail; see the previous description from his MS. of *L. pallipes*—words italicized.

the Monkeys occurring near Murree and Abbottabad are the same. I have never been able to obtain a specimen. A few years ago a scene was figured in one of the principal illustrated newspapers in which these Monkeys played a conspicuous part, but as they were represented with prehensile tails it was evident that either the imaginative powers of the artist, or the supposed tastes of the British public as interpreted by the newspaper editor, had deprived the picture of any value as evidence.

4. On a Collection of Lepidopterous Insects from San Domingo. By EMILY MARY SHARPE. With Field-notes by the Collector, Dr. CUTHBERT CHRISTY.

[Received March 10, 1898.]

The present collection was made during the year 1896 by Dr. Christy in the Island of San Domingo. He has entrusted me with the determination of the species, among which will be found a fine new Hesperid.

Dr. Christy's stay in the island was not long enough for him to obtain an extensive series of specimens, but his notes on the habits of the species will, I think, be found to be interesting. The best paper on the Lepidoptera of San Domingo is that of Ménétrés, in the third volume of the *Nouv. Mém. Soc. Imp. Nat. de Moscou* (1831).

I have taken most of the names from the collection in the British Museum, and have especially consulted the 'Biologia' of Messrs. Godman and Salvin. I have also to thank my friend Mr. W. F. Kirby for his kind assistance in determining the specimens.

Family DANAIDÆ.

1. ANOSIA ARCHIPPUS (Fabr.).

[Seen commonly from February to May both at Sanchez and La Vega. On one occasion in February, whilst on a shooting trip in the big morass at the mouth of the Yuna river, I found quantities of these insects frequenting certain dried mud-banks. They were very conspicuous on account of the three beautiful tufts or pencils of hair, fully three-eighths of an inch long, which they were able to extrude at will from the extremity of the abdomen. I tried many ways to get the tufts to remain extruded after the insects were killed, but was not successful.—C. C.]

Family SATYRIDÆ.

2. CALISTO HYSIUS (Godt.).

[By far the commonest Butterfly in San Domingo while I was there.—C. C.]